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Serial No. 09/658,016

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE ON APPEAL FROM THE EXAMINER TO THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

SIMONE, Jr., et al.

Serial No.:

09/658,016

Filing Date:

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Group Art Unit:

2175

Examiner:

Hassan Mahmoudi

Title:

METHOD AND APPARATUS FOR FACILITATING ACCURATE AUTOMATED PROCESSING OF DATA

MAIL STOP APPEAL BRIEF - PATENTS

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APPEAL BRIEF

Appellants appeal to the Board of Patent Appeals and Interferences from the decision of the Examiner, contained in a Final Office Action mailed December 17, 2003 ("Final Office Action"), finally rejecting Claims 1-14. Appellants mailed a Notice of Appeal on June 17, 2004. Appellants respectfully submit this Appeal Brief, in triplicate, under the provisions of 37 C.F.R. §1.192.

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REAL PARTY IN INTEREST

The real party in interest for this Application under appeal is Corel Inc. of Ottawa, Ontario, Canada, as indicated by the Change of Name recorded April 23, 2002 in the Assignment Records of the United States Patent and Trademark Office at Reel 012840, Frame 0059.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to the Appellants, the undersigned Attorney for Appellants, or the Assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

Claims 1-14 were rejected in the *Final Office Action*. Claims 1-14 are all presented for appeal and are set forth in Appendix A.

STATUS OF AMENDMENTS

According to the Advisory Action mailed July 7, 2004 ("Advisory Action"), the Examiner will enter the amendments to the claims presented in the Response After Final filed February 17, 2004 ("Response After Final").

SUMMARY OF INVENTION

The traditional approach for carrying out image processing involves manually adjusting images on an image-by-image basis using image processing software that requires extensive operator interaction. *Specification*, at p. 3, ll. 4-8. A less common approach includes hard-coding software routines in line-by-line source code. *Id.*, at ll. 12-14. One difficultly that arises using these techniques involves accurately predicting how images will appear after being subjected to a variety of processing operations. *Id.*, at p. 3, ln. 26-p. 4, ln. 2.

The present invention provides a method and apparatus for facilitating efficient and accurate preparation of a project definition which will control automated processing of data. *Id.*, at p. 5, 1l. 2-7. A project definition defines how data obtained from files storing images will be processed. *Id.*, at p. 9, 1l. 5-7. A project definition may recognize source modules, branch modules, action modules, and destination modules. *Id.*, at p. 15, 1l. 3-12. These

modules may define where to find data for processing, which data should be processed, what processing should be performed on the data, and where to put processed data. *Id.*, at ll. 15-21. For example, processing an image may include beveling, blurring, and/or tinting an image. *Id.*, at p. 28, ll. 1-16; p. 28, ll. 17-29; p. 36, ll. 27-34. Processing may also include adding an image and/or text to another image. *Id.*, at p. 36, ll. 16-26; p. 41, ll. 1-15. Project definitions may be visually represented. *Id.*, at p. 45, ll. 27-30; p. 92, ll. 13-21; Fig. 6-8. Modules included in a project definition may be visually represented, for example, using a rectangular box, icon, or other appropriate representation. *Id.*, at p. 44, ll. 15-26.

Various computer application programs may be used to create a project definition. *Id.*, at p. 87, ll. 5-19. For example, to prepare a project definition, a user may select desired modules for inclusion in the project definition by pointing and clicking in a viewable area of a screen using a mouse. *Id.*, at p. 91, ll. 13-19. Input ports and output ports of modules included in a project definition may be bound together to create binding definitions, for example, by using a mouse to create binding lines. *Id.*, at p. 92, ln. 22-p. 93, ln. 24.

To preview the effect of a module, a user may cause a sample image to be displayed showing the effects of parameter settings associated with the module. *Id.*, at p. 100, ll. 13-25. During creation or modification of the project definition, this preview function permits variable parameters associated with the module to be rapidly and accurately adjusted to an appropriate setting, so that a satisfactory result will be achieved when that module is used during subsequent execution of the project definition. *Id.*, at p. 101, ll. 4-12.

ISSUES

- 1. Whether Claims 1-14 are definite under 35 U.S.C. §112, second paragraph.
- 2. Whether Claims 1-3, 6, 8-10, and 13 are patentable under 35 U.S.C. §102(e) over U.S. Patent No. 5,848,198, which issued to Penn ("Penn").
- 3. Whether Claims 4, 5, 11, and 12 are patentable under 35 U.S.C. §103(a) over *Penn* in view of U.S. Patent No. 6,130,676, which issued to Wise et al. ("Wise").
- 4. Whether Claims 7 and 14 are patentable under 35 U.S.C. §103(a) over *Penn* in view of U.S. Patent No. 5,481,668, which issued to Marcus ("*Marcus*").

GROUPING OF CLAIMS

For each separate issue, Appellants request that all claims be grouped together for purposes of this appeal.

ARGUMENT

I. Claims 1-14 are definite.

In the *Final Office Action*, the Examiner rejected Claims 1-14 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Appellants regard as their invention. Specifically, the Examiner rejected Claims 1 and 8 based on use of the term "different," which the Examiner stated is an indefinite "relative term." The remaining claims were rejected as being dependent upon rejected base claims.

According to the *Advisory Action*, the Examiner will enter the amendments to Claims 1 and 8 presented in the *Response After Final*. These amendments eliminate the term "different" from Claims 1 and 8. Thus, Appellants submit that the §112 rejection of Claims 1 and 8 is obviated due to these amendments. Since the Examiner only rejected Claims 2-7 and 9-14 under §112 for being dependent on Claims 1 and 8 respectively, the §112 rejection of Claims 2-7 and 9-14 is also obviated due to these amendments. To the extent the Examiner maintains the §112 rejection after entering the amendments to Claims 1 and 8, Appellants request the Board to reverse the §112 rejection of Claims 1-14.

II. Claims 1-3, 6, 8-10, and 13 are patentable over *Penn* because *Penn* fails to describe, either expressly or inherently, every element of these claims.

The Examiner rejects Claims 1-3, 6, 8-10, and 13 under 35 U.S.C. §102(e) as being anticipated by *Penn*. To support a rejection under 35 U.S.C. §102(e), the Examiner must show that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (quoting *Verdegaal Bros. v. Union Oil at col. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987)).

Appellants' independent Claim 1 recites:

A method, comprising the steps of: providing a set of predetermined function definitions; and

preparing a project definition, said project definition including:

a plurality of function portions which each correspond to one of said function definitions in said set, and which each define at least one input port and at least one output port that are functionally related according to the corresponding function definition, one of said function portions also defining a control port which is functionally related to said input and output ports thereof according to the corresponding function definition, said one function portion being configured to process image information according to the corresponding function definition in a manner which varies under control of information at said control port;

a further portion which includes a source portion identifying a data source and defining an output port through which data from the data source can be produced, and which includes a destination portion identifying a data destination and defining an input port through which data can be supplied to the data destination;

information which includes a definition of control information for said control port of said one function portion; and

binding information which includes binding portions that each associate a respective said input port with one of said output ports;

wherein said preparing step includes the step of preparing said one function portion for inclusion in said project definition by permitting interactive user adjustment of working information which will become said control information, while simultaneously displaying a sample image processed according to the function definition corresponding to said one function portion as characterized by the current state of the working information.

Appellants submit that *Penn* fails to fails to describe, either expressly or inherently, each and every element of this Claim.

In general, *Penn* discloses using fractal mathematics for diagnostic and analytical purposes. *See, e.g., Penn*, at col. 1, ll. 11-20. More specifically, *Penn* teaches using fractal mathematics to detect, identify, and analyze anomalies and abnormalities within images such as X-rays. *Id.* For example, according to the teachings of *Penn*, fractal models may be used to generate images in which features are attenuated or enhanced. *Id.*, at col. 4, ll. 18-29.

However, none of these concepts, nor anything else found in *Penn*, describes, either expressly or inherently, each and every element of Claim 1.

Among other aspects of Claim 1, Penn fails to describe:

preparing said one function portion for inclusion in said project definition by permitting interactive user adjustment of working information which will become said control information, while simultaneously displaying a sample image processed according to the function definition corresponding to said one function portion as characterized by the current state of the working information.

As teaching these elements, the Examiner cites two paragraphs of *Penn. Final Office Action*, at p. 4. However, neither paragraph teaches the recited elements.

The first paragraph states that a computer is responsive to operator inputs into a keyboard and provides examples of data that a memory can store. Penn, at col. 19, ll. 10-17. The second paragraph discusses the fact that the computer is coupled to a printer, a Cathode Ray Tube (CRT), and a transmitter, all of which can output scanned images. Penn, at col. 19, 11. 31-43. These paragraphs merely show that a computer can use various devices to input data, store data, and output scanned images. These paragraphs fail to describe "permitting interactive user adjustment of working information which will become said control information." These paragraphs also fail to describe "displaying a sample image processed according to the function definition corresponding to said one function portion as characterized by the current state of the working information." Furthermore, neither these paragraphs nor any other part of Penn describes these two actions occurring "simultaneously," as required by the claim language. Thus, Penn nowhere discloses, in these paragraphs or elsewhere, "preparing said one function portion for inclusion in said project definition by permitting interactive user adjustment of working information which will become said control information, while simultaneously displaying a sample image processed according to the function definition corresponding to said one function portion as characterized by the current state of the working information."

Furthermore, *Penn* also fails to describe "binding information which includes binding portions that each associate a respective said input port with one of said output ports." As teaching these elements, the Examiner cites *Penn*'s statement regarding "a header containing descriptive information." *Final Office Action*, at p. 4. However, *Penn* discloses that each entry in a catalog of scanned X-ray images includes a header to describe the particular X-ray

image. *Penn*, at col. 18, ln. 65-col. 19, ln. 9. Thus, the header described in *Penn* in no way shows "binding information which includes binding portions that each associate a respective said input port with one of said output ports."

In addition, *Penn* fails to describe "information which includes a definition of control information for said control port of said one function portion." The Examiner cites various sections of *Penn* in regard to this claim element. *See Final Office Action*, at pp. 4 and 11. However, none of these sections describe the claimed elements. *See Penn*, at col. 11, ll. 37-44 (discussing modeling pictures using line segments); col. 3, ll. 27-38 (discussing deriving images from related images); col. 7, ll. 8-25 (discussing steps used to model binary images); and col. 9, ll. 11-17 (discussing using affine transformation values to generate a boundary in a binary image). For example, none of these sections describe "a definition of control information for said control port of said one function portion."

These reasons apply similarly with respect to Appellants' Claim 8. Claims 3, and 6 and 9, 10, and 13 depend from Claims 1 and 8 respectively. Therefore, at least for all of the reasons discussed above, Appellants request the Board to reverse the §102 rejection of Claims 1-3, 6, 8-10, and 13.

III. Claims 4, 5, 11, and 12 are patentable over *Penn* in view of *Wise* because the combination of these references is improper and because these references fail to teach or suggest of all elements these claims.

The Examiner rejects Claims 4, 5, 11, and 12 under 35 U.S.C. §103(a) as being unpatentable over *Penn* in view of *Wise*. To establish a *prima facie* case of obviousness, the Examiner must satisfy three criteria. First, there must be suggestion or motivation in the prior art to modify or combine the references. Second, there must be a reasonable expectation of success. Third, the combination must teach or suggest all elements of the rejected claims. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991).

The proposed combination of *Penn* and *Wise* is improper because the prior art fails to suggest or motivate the proposed combinations of the references. The factual inquiry whether to combine references must be thorough and searching. *McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1351-52 (Fed. Cir. 2001). This factual question cannot be resolved on subjective belief and unknown authority, but must be based on objective evidence of record. *See In re Lee*, 277 F.3d 1338, 1343-44 (Fed. Cir. 2002).

Nothing in *Penn* or *Wise* suggests or motivates the proposed combination. As discussed above, *Penn* teaches using fractal mathematics to detect, identify, and analyze anomalies and abnormalities within images such as X-rays. *Penn*, at col. 1, ll. 11-20. On the other hand, *Wise* teaches a software paint application that forms images from a composite of a number of different image layers. *Wise*, at col. 4, ll. 43-57.

Nor has the Examiner provided evidence that suggests the proposed combination. Instead, the Examiner provides conclusory statements that fail to demonstrate any suggestion or motivation to combine the references. For example, with regard to Claims 4 and 11, the Examiner states:

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Penn by the teaching of Wise et al, because including a blur function definition for which the specified effect is the addition to an image of a blurring effect, would enable the user to modify image properties to a desired setting for enhanced viewing of the displayed image.

Final Action, at p. 7. Similarly, with regard to Claims 5 and 12, the Examiner states:

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Penn by the teaching of Wise et al, because including a tint function definition for which the specified effect is the addition to an image of a tint effect having characteristics determined by the control input to the tint function definition, would enable the user to adjust image properties (colors) to a desired setting for enhanced viewing of the displayed image.

Id. These conclusory statements simply fail to show that the prior art suggests or motivates the proposed combinations of the references.

Furthermore, there is no suggestion or motivation to combine *Penn* and *Wise* because the proposed modification of *Penn* would render the invention disclosed by *Penn* unsatisfactory for its intended purpose. If a proposed modification would cause the prior art invention being modified to be unsatisfactory for its intended purpose, then no suggestion or motivation to make the proposed modification exists. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984). Modifying the invention disclosed by *Penn* to include a blur or tint function would defeat the purpose of the invention disclosed in *Penn*: the detection, identification, and analysis of anomalies and abnormalities within images. *Penn*, at col. 14, Il. 54-57. Thus, for this additional reason, the proposed combination of *Penn* and *Wise* is improper.

In addition, Claims 4, 5, 11, and 12 depend from Claims 1 and 8 respectively, which are shown above to be patentable over *Penn*. The introduction of *Wise* fails to provide the elements of Appellants' Claims 1 and 8 not shown by *Penn*. Because Claims 4, 5, 11, and 12 depend from and include all elements of their respective base claims, *Wise* and *Penn* fail to teach or suggest all elements of Claims 4, 5, 11, and 12.

Thus, at least for all of the reasons discussed above, Appellants request the Board to reverse the §103 rejection of Claims 4, 5, 11, and 12.

IV. Claims 7 and 14 are patentable over *Penn* in view of *Marcus* because the combination of these references is improper and because these references fail to teach or suggest all elements of these claims.

The Examiner rejects Claims 7 and 14 under 35 U.S.C. §103(a) as being unpatentable over *Penn* in view of *Marcus*. As discussed above, to establish a *prima facie* case of obviousness, the Examiner must satisfy three criteria. First, there must be suggestion or motivation in the prior art to modify or combine the references. Second, there must be a reasonable expectation of success. Third, the combination must teach or suggest all elements of the rejected claims. *In re Vaeck*, 947 F.2d at 488.

The proposed combination of *Penn* and *Marcus* is improper because the prior art fails to suggest or motivate the proposed combinations of the references. As discussed above, the factual inquiry whether to combine references must be thorough and searching. *McGinley*, 262 F.3d at 1351-52. This factual question cannot be resolved on subjective belief and unknown authority, but must be based on objective evidence of record. *See In re Lee*, 277 F.3d at 1343-44.

Nothing in *Penn* or *Marcus* suggests or motivates the proposed combination. As discussed above, *Penn* teaches using fractal mathematics to detect, identify, and analyze anomalies and abnormalities within images such as X-rays. *Penn*, at col. 1, ll. 11-20. On the other hand, *Marcus* teaches a system for modeling processes using graphical symbols and textual attributes. *Marcus*, at col. 1, ll. 35-43.

Nor has the Examiner provided evidence that suggests the proposed combination. The Examiner provides a conclusory statement that fails to demonstrate any suggestion or motivation to combine the references. The Examiner states:

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Penn by the teaching of Marcus, because a text adding function definition for which the specified effect is the addition to an image of a text string having characteristics determined by the control input to the text adding function definition, would enable the user to specify descriptions associated with the image, helping the retrieval of the desired image, as taught by Marcus (see column 8, lines 38-45.)

Final Action, at p. 8. This conclusory statement simply fails to show that the prior art suggests or motivates the proposed combinations of the references.

Furthermore, the section of *Marcus* cited by the Examiner fails to provide any evidence of a suggestion or motivation to combine:

This "TEXT" function associated with the "WRITE" command for an activity causes a dialog box 2 to appear, shown in FIG. 2, in which a title bar 20 specified that it pertains to an activity, a writing box 21 enables retrieval of the activity number, a second writing box 23 enables the activity name, a third box 22 enables retrieving the duration of the activity, and a fourth box 24 enables retrieval of the interval.

Marcus, at col. 8, 11. 38-45. This section simply discusses a dialog box. The dialog box can be used to validate or invalidate information used to document activities associated with a representation of a procedure. *Id.*, at col. 7, 11. 32-35; col. 8, 11. 49-52.

In addition, Claims 7 and 14 depend from Claims 1 and 8 respectively, which are shown above to be patentable over *Penn*. The introduction of *Marcus* fails to provide the elements of Appellants' Claims 1 and 8 not shown by *Penn*. Because Claims 7 and 14 depend from and include all elements of their respective base claims, *Marcus* and *Penn* fail to teach or suggest all elements of Claims 7 and 14.

Thus, at least for all of the reasons discussed above, Appellants request the Board to reverse the §103 rejection of Claims 7 and 14.

CONCLUSION

Appellants have demonstrated that Claims 1-14 are definite and that the present invention, as claimed in Claims 1-14, is patentably distinct from the cited art. Accordingly, Appellants respectfully request that the Board reverse the final rejection of the Examiner and instruct the Examiner to issue a Notice of Allowance of Claims 1-14.

Appellants submit this Appeal Brief in triplicate and enclose a check in the amount of \$330.00 to cover the required fee. The Commissioner is hereby authorized to charge any extra fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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APPENDIX A - CLAIMS PRESENTED ON APPEAL

A method, comprising the steps of:
providing a set of predetermined function definitions; and
preparing a project definition, said project definition including:

a plurality of function portions which each correspond to one of said function definitions in said set, and which each define at least one input port and at least one output port that are functionally related according to the corresponding function definition, one of said function portions also defining a control port which is functionally related to said input and output ports thereof according to the corresponding function definition, said one function portion being configured to process image information according to the corresponding function definition in a manner which varies under control of information at said control port;

a further portion which includes a source portion identifying a data source and defining an output port through which data from the data source can be produced, and which includes a destination portion identifying a data destination and defining an input port through which data can be supplied to the data destination;

information which includes a definition of control information for said control port of said one function portion; and

binding information which includes binding portions that each associate a respective said input port with one of said output ports;

wherein said preparing step includes the step of preparing said one function portion for inclusion in said project definition by permitting interactive user adjustment of working information which will become said control information, while simultaneously displaying a sample image processed according to the function definition corresponding to said one function portion as characterized by the current state of the working information.

2. A method according to Claim 1,

wherein said step of providing said set of said function definitions includes the step of including in said set a selected function definition which can add to an image a specified effect having characteristics determined by control input supplied to said selected function definition; and

wherein said step of preparing said one function portion includes the step of indicating that said one function portion corresponds to said selected function definition, said control information of said one function portion being provided for use as the control input for said selected function definition.

- 3. A method according to Claim 2, wherein said step of including said selected function definition in said set includes the step of selecting as said selected function definition a bevel function definition for which said specified effect is the addition to an image of a bevel effect having characteristics determined by the control input to said bevel function definition.
- 4. A method according to Claim 2, wherein said step of including said selected function definition in said set includes the step of selecting as said selected function definition a blur function definition for which said specified effect is the addition to an image of a blurring effect having characteristics determined by the control input to said blur function definition.
- 5. A method according to Claim 2, wherein said step of including said selected function definition in said set includes the step of selecting as said selected function definition a tint function definition for which said specified effect is the addition to an image of a tint effect having characteristics determined by the control input to said tint function definition.

- 6. A method according to Claim 2, wherein said step of including said selected function definition in said set includes the step of selecting as said selected function definition an image adding function definition for which said specified effect is the addition to an image of a further image having characteristics determined by the control input to said image adding function definition.
- 7. A method according to Claim 2, wherein said step of including said selected function definition in said set includes the step of selecting as said selected function definition a text adding function definition for which said specified effect is the addition to an image of a text string having characteristics determined by the control input to said text adding function definition.

- 8. A computer-readable medium encoded with a computer program which recognizes a set of predetermined function definitions; said program being operable when executed to facilitate preparation of a project definition which includes:
- a plurality of function portions which each correspond to one of said function definitions in said set, and which each define at least one input port and at least one output port that are functionally related according to the corresponding function definition, one of said function portions also defining a control port which is functionally related to said input and output ports thereof according to the corresponding function definition, said one function portion being configured to process image information according to the corresponding function definition in a manner which varies under control of information at said control port;
- a further portion which includes a source portion identifying a data source and defining an output port through which data from the data source can be produced, and which includes a destination portion identifying a data destination and defining an input port through which data can be supplied to the data destination;

information which includes a definition of control information for said control port of said one function portion; and

binding information which includes binding portions that each associate a respective said input port with one of said output ports;

said program being further operable when executed to carry out the preparation of said one function portion in a manner which includes permitting interactive user adjustment of working information which will become said control information, while simultaneously displaying a sample image processed according to the function definition corresponding to said one function portion as characterized by the current state of the working information.

9. A computer-readable medium according to Claim 8, wherein said program is operable when executed to:

recognize that said set of said function definitions includes a selected function definition which can add to an image a specified effect having characteristics determined by control input supplied to said selected function definition; and

carry out said preparation of said one function portion in a manner which includes indicating that said one function portion corresponds to said selected function definition, said control information of said one function portion being provided for use as the control input for said selected function definition.

- 10. A computer-readable medium according to Claim 9, wherein said program is operable when executed to recognize as said selected function definition a bevel function definition for which said specified effect is the addition to an image of a bevel effect having characteristics determined by the control input to said bevel function definition.
- 11. A computer-readable medium according to Claim 9, wherein said program is operable when executed to recognize as said selected function definition a blur function definition for which said specified effect is the addition to an image of a blurring effect having characteristics determined by the control input to said blur function definition.
- 12. A computer-readable medium according to Claim 9, wherein said program is operable when executed to recognize as said selected function definition a tint function definition for which said specified effect is the addition to an image of a tint effect having characteristics determined by the control input to said tint function definition.
- 13. A computer-readable medium according to Claim 9, wherein said program is operable when executed to recognize as said selected function definition an image adding function definition for which said specified effect is the addition to an image of a further image having characteristics determined by the control input to said image adding function definition.

14. A computer-readable medium according to Claim 9, wherein said program is operable when executed to recognize as said selected function definition a text adding function definition for which said specified effect is the addition to an image of a text string having characteristics determined by the control input to said text adding function definition.